

IN THE CLAIMS:

Please amend the claims as shown in the following listing of claims, which replaces all prior versions and listings of claims in the application:

1 – 4. Cancelled.

5. (Previously presented) A support according to claim 12 wherein the diamond-like carbon material comprises a resistivity of from about 10^4 Ohm·cm to about 10^8 Ohm·cm.

6. (Previously presented) A support according to claim 12 wherein the diamond-like carbon material comprises from about 0.1 atom % to about 10 atom % of a metal additive, whereby the metal additive changes the resistivity of the coating.

7 - 11. Cancelled.

12. (Previously presented) A substrate support comprising:

(a) a ceramic structure having an electrode embedded therein, the electrode being chargeable to electrostatically hold a substrate; and

(b) a contact surface comprising a plurality of mesas, the mesas comprising a coating of a diamond-like carbon material directly over a titanium metal adhesion layer, the diamond-like carbon material comprising a composition of from about 50 atom % to about 90 atom % carbon, from about 5 atom % to about 10 atom % hydrogen, from about 10 atom % to about 20 atom % silicon, and from about 5 atom % to about 10 atom % oxygen, to provide a coefficient of friction of less than about 0.3, an average surface roughness of less than about 0.4 micrometers, and a microhardness of at least about 8 GPa, whereby the diamond-like coating reduces the abrasion and contamination of substrates that contact the coating.

13. Cancelled.

14. (Original) A support according to claim 12 wherein the coating comprises a thickness of from about 1 to about 20 microns.

15. (Currently amended) A support according to claim [[14]] 12 wherein the titanium metal adhesion layer comprises a thickness of from about 0.25 to about 4 microns.

16. (Previously presented) A support according to claim 12 wherein the diamond-like carbon material comprises a diamond-like nanocomposite having networks of (i) carbon and hydrogen, and (ii) silicon and oxygen.

17. Cancelled.

18. (Previously presented) A support according to claim 12 wherein the diamond-like carbon material comprises a metal additive.

19. (Previously presented) A support according to claim 12 wherein the ceramic structure comprises AlN or Al₂O₃.

20. (Previously presented) A support according to claim 12 wherein the diamond-like carbon material is co-deposited with a metal additive by a process combining physical vapor deposition of the metal additive in a plasma enhanced chemical vapor deposition environment.

21-57. Cancelled.

58. (Previously presented) A substrate support comprising:

(a) a ceramic support structure having an electrode embedded therein, the electrode being chargeable to electrostatically hold a substrate; and

(b) a contact surface comprising a plurality of mesas, each mesa substantially entirely composed of (i) a surface coating comprising a diamond-like carbon material having a composition of from about 50 atom % to about 90 atom % carbon, from about 5 atom % to about 10 atom % hydrogen, from about 10 atom % to about 20 atom % silicon, and from about 5 atom % to about 10 atom % oxygen, the surface coating comprising a coefficient of friction of less than about 0.3, an average surface roughness of less than about 0.4 micrometers, and a microhardness of at least about 8 GPa; and (ii) an adhesion layer comprising a metal layer between the ceramic support structure and the surface coating.

59-60. Cancelled.

61. (Previously presented) A support according to claim 58 wherein the diamond-like carbon material comprises a diamond-like nanocomposite having networks of (i) carbon and hydrogen, and (ii) silicon and oxygen.

62. (Previously presented) A support according to claim 58 wherein the diamond-like carbon material comprises a resistivity of from about 10^4 Ohm·cm to about 10^8 Ohm·cm.

63. (Previously presented) A support according to claim 62 wherein the diamond-like carbon material comprises from about 0.1 atom % to about 10 atom % of a metal additive, whereby the metal additive changes the resistivity of the coating.

64 -85. Cancelled.

86. (Previously presented) A substrate support comprising:

(a) a ceramic support structure having an electrode embedded therein, the electrode being chargeable to electrostatically hold a substrate; and

(b) a contact surface comprising a plurality of mesas, each mesa comprising:

(i) a titanium layer; and

(ii) a diamond-like carbon coating layer over the titanium layer, the diamond-like carbon coating layer comprising (i) a composition of from about 50 atom % to about 90 atom % carbon, from about 5 atom % to about 10 atom % hydrogen, from about 10 atom % to about 20 atom % silicon, and from about 5 atom % to about 10 atom % oxygen, (ii) a coefficient of friction of less than about 0.3, (iii) an average surface roughness of less than about 0.4 micrometers, and (iv) a microhardness of at least about 8 GPa.

87. (Previously presented) A support according to claim 86 wherein the diamond-like carbon coating layer comprises a resistivity of from about 10^4 Ohm·cm to about 10^8 Ohm·cm.

88. (Previously presented) A support according to claim 86 wherein the diamond-like carbon coating layer comprises a thickness of from about 1 to about 20 microns.

89. (Previously presented) A support according to claim 86 wherein the diamond-like carbon coating layer comprises a metal additive in a concentration of from about 0.1 atom % to about 10 atom %, whereby the metal additive changes the resistivity of the coating.

90. (Previously presented) A support according to claim 86 wherein the titanium layer comprises a thickness of from about 0.25 to about 4 microns.

91. (Currently amended) A support according to claim 86 wherein the ceramic support structure comprises AlN or Al₂O₃.

92. (Previously presented) A support according to claim 86 wherein the diamond-like carbon coating layer comprises a hardness of from about 18 GPa to about 25 GPa.